

55. (New) A fabrication method of a semiconductor device, comprising the steps of:

C¹ forming an insulating film on a substrate on which at least one switching element is formed;

removing a portion of the insulating film by an etching process to form a concave section with the insulating film being removed, the concave section resulting in a wiring pattern and contact holes;

forming a film of an electroconductive metal material on the insulating film and in the concave section with the insulating film being removed;

polishing the metal material film to remove the metal material formed on the insulating film; and

washing the surface of the substrate including an upper surface of the polished metal material film and an upper surface of the insulating film exposed by the polishing;

wherein the washing step comprises the steps of washing the surface of the substrate by means of an ultrasonic wave washing with a washing liquid to which an ultrasonic wave at a frequency band of not less than 800 kHz is applied, and subsequently washing the surface of the substrate by means of a scrubbing washing or a high-pressure jet washing.

56. (New) The fabrication method according to Claim 55, wherein the polishing step is conducted by means of a chemical mechanical polishing using a slurry and a pad.

57. (New) The fabrication method according to Claim 55, wherein the frequency band is 1 MHz to 3 MHz.

58. (New) The fabrication method according to claim 55, wherein the ultrasonic wave washing is carried out while the washing liquid is discharged from a nozzle moving along the surface of the substrate.

C 59. (New) The fabrication method according to Claim 55, wherein the ultrasonic wave washing is carried out while the substrate is rotated at 1000 rpm to 2500 rpm.

60. (New) The fabrication method according to Claim 55, wherein the scrubbing washing is conducted using a mohair brush or a PVA sponge.

61. (New) The fabrication method according to Claim 55, wherein after conducting the scrubbing washing or the high-pressure jet washing the ultrasonic wave washing is again conducted.

62. (New) The fabrication method according to Claim 55, wherein the concave section with the insulating film being removed is formed by forming a laminated film sandwiching a film resulting in an etching stopper as the insulating film, forming a part resulting in the wiring pattern on the film resulting in the etching stopper, and forming

a part resulting in the contact holes at the film resulting in the etching stopper and its underlying film.

63. (New) The fabrication method according to Claim 62, wherein the surface of the film underlying the film resulting in the etching stopper is polished so as to have a flat plane.

C' 64. (New) The fabrication method according to Claim 55, wherein a multi-layered wiring is formed by repeating a plurality of times the following series of steps: forming the insulating film; forming the concave section with the insulating film being removed; forming the metal material film; and removing the metal material.

65. (New) A fabrication method of a semiconductor device for use in a reflection type display apparatus having a reflective face, the fabrication method comprising the steps of:

forming an insulating film on a substrate on which at least one switching element is formed;

forming a concave section with the insulating film being removed;

forming a film of an electroconductive metal material on the insulating film and in the concave section with the insulating film being removed;

polishing the metal material film to remove the metal material formed on the insulating film, thereby forming the reflective face; and

washing the surface of the substrate including the reflective face and an upper surface of the insulating film which is exposed by the polishing,

wherein the washing step comprises the steps of washing the surface of the substrate by means of an ultrasonic wave washing with a washing liquid to which an ultrasonic wave at a frequency band of not less than 800 kHz is applied, and subsequently washing the surface of the substrate by means of a scrubbing washing or a high-pressure jet washing.

C 66. (New) A fabrication method of a semiconductor device for use in a reflection type display apparatus having a reflective face, the fabrication method comprising the steps:

forming a first insulating film on a substrate on which at least one switching element is formed;

removing a portion of the first insulating film by an etching process to form a first concave section with the first insulating film being removed, the first concave section resulting in a wiring pattern and contact holes;

forming a film of an electroconductive metal material on the first insulating film and in the first concave section with the first insulating film being removed;

polishing the metal material film to remove the metal material formed on the first insulating film;

washing the surface of the substrate including an upper surface of the polished metal material film and an upper surface of the first insulating film which is exposed by the polishing;

forming a second insulating film which covers the metal material formed in the first concave section with the first insulating film being removed;

forming a second concave section with the second insulating film being removed;

forming a film of an electroconductive metal material on the second insulating film and in the second concave section with the second insulating film being removed;

C' polishing the metal material to remove the metal material formed on the second insulating film, thereby forming the reflective face; and

washing the surface of the substrate including the reflective face and an upper surface of the second insulating film which is exposed by the polishing,

wherein either of the washing steps comprises the steps of washing the surface of the substrate by means of an ultrasonic wave washing with a washing liquid to which an ultrasonic wave at a frequency band of not less than 800 kHz is applied, and subsequently washing the surface of the substrate by means of a scrubbing washing or a high-pressure jet washing.
